

AMENDMENTS TO THE CLAIMS

1. (CURRENTLY AMENDED) A method for classifying a first video type and a second video type in a video signal having a ~~series~~ plurality of frames, comprising the steps of:

5 (A) ~~reading~~ generating a plurality of first ~~set of~~ parameters defining a first transition portion between an a first active portion and a first blank portion in of a first of said frames;

10 (B) ~~reading~~ generating a plurality of second ~~set of~~ parameters defining a second transition portion between an a second active portion and a second blank portion in of a second of said frames, wherein said second frame follows said first frame;

(C) comparing said first ~~set of said~~ parameters with said second ~~set of~~ parameters to generate a comparison value; and

15 (D) ~~if said comparison value is above a predetermined threshold,~~ generating a signal indicating the (i) said first video type when said comparison value is greater than a predetermined threshold and, and (E) ~~if said comparison value is not above said predetermined value, indicating the (ii) said second video type when said comparison value is less than said predetermined~~
20 threshold.

2. (CURRENTLY AMENDED) The method according to claim 1, wherein (i) said first video type comprises a commercial and (ii) said second video type comprises a program.

3. (CURRENTLY AMENDED) The method according to claim 1, wherein said first ~~set of parameters~~ comprise ~~comprises a first~~
~~four set (T, B, L, R), where~~ (i) a first T parameter that
represents a first number of top lines in said first transition
5 portion from a top of a nominally active area, (ii) a first B
parameter that represents ~~a second~~ a first number of bottom lines
in said first transition portion from a bottom of the nominally
active area, (iii) a first L parameter that represents a first
number of left columns in said first transition portion from a left
10 of the nominally active area, and (iv) a first R parameter that
represents ~~a second~~ a first number of right columns in said first
transition portion from a right of the nominally active area.

4. (CURRENTLY AMENDED) The method according to claim 3, wherein said first transition portion ~~the number of lines T~~
comprises a plurality of pixels ~~video~~ with no material non-black
content,

5 ~~the number of lines B comprises video with no material~~
~~non-black content,~~

~~the number of lines L comprises video with no material non-black content, and~~

~~the number of lines R comprises video with no material non-black content.~~

5. (CURRENTLY AMENDED) The method according to claim 3, wherein said second ~~set of~~ parameters comprise ~~comprises a second four set (T, B, L, R), where~~ (i) a second T parameter that represents a first a second number of top lines in said second transition portion from a top of a nominally active area, (ii) a second B parameter that represents a second number of bottom lines in said second transition portion from a bottom of the nominally active area, (iii) a second L parameter that represents a third a second number of left columns in said second transition portion ~~lines from a left of the nominally active area,~~ and (iv) a second R parameter that represents a fourth a second number of right columns in said second transition portion ~~lines from a right of the nominally active area.~~

6. (CURRENTLY AMENDED) The method according to claim 5 1, wherein said second transition portion, ~~in the second four set. the number of lines T comprises a plurality of pixels video with no materially non-black content,~~

5 ~~the number of lines B comprises video with no materially
non-black content,~~

~~the number of lines L comprises video with no materially
non-black content, and~~

10 ~~the number of lines R comprises video with no materially
non-black content.~~

7. (CURRENTLY AMENDED) The method according to claim
5, wherein step (D) comprises comparing (A) a sum of (i) an a first
absolute value of the a first difference of between said first T
parameter and said second T parameter parameters, plus (ii) an a
5 second absolute value of the a second difference of between said
first B parameter and said second B parameter parameters, plus
(iii) an a third absolute value of the a third difference of
between said first L parameter and said second L parameter
parameters, plus (iv) an a fourth absolute value of the a fourth
10 difference of between said first R parameter and said second R
parameter parameters, to the with (B) said predetermined threshold
value.

8. (CURRENTLY AMENDED) The method according to claim
1, wherein (i) said predetermined threshold value comprises (i) a
first threshold to determine if the said first frame and the said
second frame are part of an unbroken segment and (ii) said

5 ~~predetermined value comprises a second threshold to determine if~~
~~the first frame and the second frame have the same set of said~~
first parameters match said second parameters.

9. (ORIGINAL) The method according to claim 1, wherein
said video signal comprises a digital video signal.

10. (CURRENTLY AMENDED) An apparatus comprising:

a first detector circuit configured to generate (i) a
plurality of first set of parameters defining a first transition
portion between an a first active portion and a first blank portion
5 in of a first frame of a video signal having a series plurality of
frames and (ii) a plurality of second set of parameters defining a
second transition portion between an a second active portion and a
second blank portion in of a second frame of said video signal,
wherein said second frame follows said first frame; and

10 a second detector circuit configured to (i) generate a
~~transition indication signal in response to a comparison between~~
comparison value by comparing (i) said first set of parameters and
(ii) with said second set of parameters and (ii) generate a signal
indicating (a) a first video type when said comparison value is
15 greater than a predetermined threshold and (b) a second video type
when said comparison value is less than said predetermined
threshold.

11. (CURRENTLY AMENDED) The ~~method~~ apparatus according to claim 10, wherein said ~~further~~ first detector circuit comprises a 4-set detector configured to detect at least four parameters from each of said frames.

12. (CURRENTLY AMENDED) The apparatus according to claim 10, wherein said second detector circuit comprises a segment detector configured to receive said second parameters following receipt of said first parameters.

13. (CURRENTLY AMENDED) The apparatus according to claim 10, wherein said first detector circuit generates said first ~~set of~~ parameters and said second ~~set of~~ parameters in response to (i) a threshold signal and (ii) one or more samples from said
5 frames.

14. (CURRENTLY AMENDED) The apparatus according to claim 10, further comprising:

a controller (i) connected between said first detector circuit and said second detector circuit and (ii) configured to
5 control said first detector circuit and said second detector circuit.

15. (CURRENTLY AMENDED) The apparatus according to claim 10, wherein a change in said ~~program indication~~ signal indicates a transition between a first program type and a second program type.

16. (CURRENTLY AMENDED) A method for distinguishing between a commercial and a program in a digital video signal having a ~~series~~ plurality of frames, comprising the steps of:

(A) determining both a first size and a first position
5 of a first truly active region of in a first of said frames;

(B) determining both a second size and a second position
of a second truly active region of in a second of said frames,
wherein said second frame follows said first frame; and

(C) generating a signal to indicate a lack of a scene
10 transition between said commercial and said program when if both
said first size and said first position of said first truly active
region ~~is~~ are substantially similar to both said second size and
said second position of said second truly active region, ~~indicating~~
~~a first segment signature.~~

17. (CURRENTLY AMENDED) The method according to claim 16, further comprising the step of:

generating said signal to indicate a presence of said
scene transition between said commercial and said program if when

5 at least one of said first size and said first position of said
first truly active region is not substantially similar to a
corresponding at least one of said second size and said second
position of said second truly active region,~~indicating a second~~
~~segment signature.~~

18. (CURRENTLY AMENDED) The method according to claim
17, ~~wherein~~ further comprising the steps of:

generating ~~said~~ a first segment signature associated with
said first frame where said scene transition represents a change
5 from said program to said commercial; and

generating ~~said~~ a second segment signature associated
with said second frame ~~represents a program.~~

19. (CURRENTLY AMENDED). The method according to claim
18, wherein said method further comprises implementing a commercial
advance by:

skipping said frames having first said second segment
5 signature ~~signatures~~; and

returning ~~to~~ from said commercial advance when said
frames have said second first segment signature ~~signatures.~~

20. (CURRENTLY AMENDED) A method for segmenting a video signal into a plurality of program segments and a plurality of commercial segments, comprising the steps of:

(A) ~~reading~~ generating a plurality of first ~~set of~~ parameters defining a first signature ~~for of~~ a first program segment of said program segments independent of a content of said first segment;

(B) detecting ~~the~~ an end of said first program segment;

(C) ~~reading~~ generating a plurality of second ~~set of~~ parameters defining a second signature of a second segment of said video signal;

(D) comparing said second ~~set of~~ parameters to said first ~~set of~~ parameters; and

(E) classifying said second segment as one of said program segments where if said first ~~set of~~ parameters and said second ~~set of~~ parameters are substantially similar, ~~classifying said second segment as a program segment.~~

21. (CURRENTLY AMENDED) The method of claim 20, wherein said second parameters indicate a start of active video content.